A MILLIMAN GLOBAL FIRM

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Milwaukee County Labor Relations
Courthouse, Room 210
901 N. Ninth Street
Milwaukee, Wisconsin 53233

Attention: Mr. Troy Hamblin, Director

Ladies and Gentlemen:

The enclosed revised report presents our revised analysis of the cost impact of the proposed changes to the Employees' Retirement System of the County of Milwaukee. In addition, we have provided analysis of a change in funding of the pension contribution. Milliman, Inc. was requested to undertake this review project in October of 2005.

Our major findings are included in the Executive Summary section of the report. More detailed commentary on our review process is included in the latter sections. Pages 1, 2, 4 and 9 contain some modest revisions to the initial version of the report provided on October 14, 2005.

This report is prepared solely for use by Milwaukee County in order to assess the fiscal impact of the proposed changes. It is not intended to serve any other purpose or to be relied upon by any other party. Due to the nature of the proposed changes and the time frame within which the completion of this review was requested by the County, we have prepared a limited scope review based upon sample calculations for hypothetical new employees. A complete duplication of the January 1, 2005 Actuarial Valuation has not been performed.

Respectfully submitted,

Milliman, Inc.

William V. Hogan, F.S.A.
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WVH/TJH/bh

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Jerry Heer
Dr. Karen Jackson

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EXECUTIVE SUMMARY

Our conclusions with regard to the primary issues of this review are as follows:

- Elimination of the Rule of 75 benefit for members hired on or after January 1, 2006 will:
  - Result in lower long-term costs.
  - Likely decrease short term costs on a marginal basis based upon our understanding of the current fund actuary's application of the funding method.
  - May require an adjustment in the expected rates of retirement used in the actuarial valuation.
- Elimination of the Backdrop feature for members hired on or after January 1, 2006 will:
  - Result in lower long-term costs.
  - Likely decrease short term costs on a marginal basis based upon our understanding of the current fund actuary's application of the funding method.
  - May require an adjustment in the utilization assumption used in the actuarial valuation.

The funding proposal by the County Executive will:

- Likely result in a redistribution of taxes to later generations of taxpayers by deferring current obligations.
- Likely result in a larger budgeted contribution in 2007.
- Likely result in higher total contributions due to lost investment earnings in the trust.

ESTIMATED IMPACT ON VALUATION CALCULATIONS

In order to estimate the impact of the proposed plan changes within the timeframe and budget requested, we prepared estimates of benefits and present value of future benefits on a group of hypothetical new hires. The hiring ages which were reviewed in the hypothetical sample group ranged from 25 to 60 at five year intervals. We performed our calculations with the benefit changes reflected for the different subgroups as summarized in the table that is included in the "Summary of Proposed Plan and Funding Changes" section. Based upon the results of these sample calculations, we are able to comment with some degree of confidence on the direction of the change in cost that the pension system will experience from these benefit changes. While we do not feel that we can estimate the likely magnitude of the change in costs with any degree of precision, we expect that the magnitude will be small at first and increase over time since the proposed benefit changes are limited to members hired on or after January 1, 2006.

Rule of 75

- ***Benefits***

  The effect of removing this benefit to the groups specified in the RFI will be either lower pension paid upon early retirement or a delay in the date when full pensions are paid for most members hired on or after January 1, 2006. Future members hired at age 49 or later would not be able to earn enough service to be eligible for a Rule of 75 retirement prior to age 60 (the current normal retirement age). Consequently, removing the Rule of 75 benefit for this group of future members would not have any impact on plan costs for this group. Our estimates for the hypothetical group of new hires substantiates this conclusion.

- ***Present Value of Benefits***

  Based upon our analysis of the hypothetical sample group, it appears that the proposed plan change will result in lower present value of benefits for affected employees. While we cannot comment with any certainty as to the magnitude of the change, our estimates indicate that reductions of the expected present value of future benefits may range between 0% and 10% on an individual-by-individual basis. This analysis is based upon the plan's current funding assumptions and methods.

- ***Normal Cost***

  Absent any changes in funding method or assumptions, a reduction in the present value of benefits will result in a reduction in the normal cost on an individual-by-individual basis. As discussed later, this plan change could precipitate a change in assumptions and/or funding methodology which might cause us to change our conclusion.

- ***Accrued Liability***

  Absent any changes in funding method or assumptions, a reduction in the present value of benefits will result in a reduction in the entry age accrued liability on an individual-by-individual basis. As discussed later, this plan change could precipitate a change in assumptions and/or funding methodology which might cause us to change our conclusion.

- ***Short Term Effect***

  As stated above, we believe that all cost factors will be reduced on an individual basis if this benefit change was enacted while assumptions and methods remain unchanged. Initially, the aggregate plan costs will remain unchanged since the plan change does not affect existing members. Consequently, we would expect to see very little impact on the short term funding unless funding assumptions or methods were changed as a result of the plan change. However, it is our understanding that the current fund actuary would apply the new benefit provisions to all current members of the affected groups of employees in the calculation of the individual Entry Age Normal cost calculations. This application of the Entry Age Normal cost method results in a revised allocation of costs between past service and future service for **current** members. Since the present value of future benefits does not change for current members and since the proposed benefit changes result in lower expected future service costs, the result of this application of the Entry Age Normal cost method is that the allocation of costs to past service is increased. Under the fund's current methodology, past service costs are amortized as a level percentage of payroll over 30 years. Based on the current assumptions used for budgeting purposes, this methodology produces an amortization factor of about 18 for past service costs. Future service costs are amortized as a level percentage of pay over the expected future payroll of active employees. Based on the current assumptions used for budgeting purposes, this methodology produces an amortization factor of about 8 for future service costs. Since each dollar that is shifted from future service costs to past service costs is funded over a longer period of time, we expect that the impact on short term costs will be a larger reduction due to the proposed benefit changes than what has been discussed above.

- ***Long Term Effect***

  Over a long period of time, we would expect the aggregate plan costs to be lower than they otherwise would be as a result of this plan change. This statement is made based upon the plan's current funding assumptions and methods. If, as a result of this plan change, some assumptions or methods are revised (such as expected retirement rates), plan costs may be increased or further decreased depending upon the change that is made. We have provided more discussion concerning this issue in the Assumptions section of our report.

Back-Drop

- ***Benefits***

  Our estimates for the group of hypothetical new hires indicates that the effect of eliminating this benefit feature to the groups specified in the RFI will result in a reduction in the total expected value of benefits at retirement for employees who are hired at or before age 55. For employees who are hired at ages above 55, the total expected value of benefits at retirement does not decrease without the backdrop feature. Consider the example of an employee who was hired at age 55 and is contemplating the retirement options that are available to the employee at age 63. This employee has two options with regard to the backdrop feature. Option 1 is to backdrop to age 62. Under Option 1, the employee will receive a lump sum payment of the accumulated value of the 12 monthly payments that would have been payable at age 62 based on the employee's 7 years of service at that age plus future lifetime payments of the annual benefit with future applicable cost of living adjustments. Ignoring the effect of changes in final average salary from age 62 to age 63, the increase in value of Option 1 is the interest credited in the determination of the lump sum payment (approximately 8-9%). Option 2 is to retire at age 63 and receive the future lifetime benefits (without backdrop) to which the employee is entitled. Under Option 2, the future lifetime benefits are based on the employee's 8 years of serviced earned at

age 63. The relative increase in value of Option 2 compared to Option 1 is the increase in service (8 years vs. 7 years results in an increase of approximately 14%). Consequently, if these employees made economically rational decisions, we would expect that these employees would not elect to utilize the backdrop feature. Therefore, the expected impact on plan costs of eliminating this feature would be an increase if the utilization assumption for the backdrop feature were modified to reflect the expected behavior for existing employees who retiree with short periods of service.

- ***Present Value of Benefits***

  Based upon our review of the hypothetical sample group, we believe that the proposed plan change will result in lower present value of benefits for most affected employees. Under the current utilization assumptions, the elimination of the backdrop feature results in higher expected present value of future benefits for employees who retire with short periods of service. While we cannot comment with any certainty as to the magnitude of the change, we believe that expected reductions in the present value of benefits may range between 0% and 20% on an individual-by-individual basis for employees hired at or before age 55. Under the plan's current funding assumptions and methods, expected increases in the present value of benefits begin to occur for employees hired between 55 and 60 and these increases continue as the age at hire increases. This increase occurs because the actuarial assumptions project that 70% of these retirees will elect the lower Back-Drop benefit. Older new hires who do not get this benefit will be valued at the higher regular annuity benefit. Consequently, a higher present value of benefit will actually be calculated for this small sub-group of new hires.

- ***Normal Cost***

  Absent any changes in funding method or assumptions, a reduction in the present value of benefits will result in a reduction in the normal cost on an individual-by-individual basis. As discussed later, this plan change could cause the actuary to make a change in assumptions and/or funding methodology which might cause us to change our conclusion.

- ***Accrued Liability***

  Absent any changes in funding method or assumptions, a reduction in the present value of benefits will result in a reduction in the accrued liability on an individual-by-individual basis. As discussed later, this plan change could cause the actuary to make a change in assumptions and/or funding methodology which might change the expected impact.

- ***Short-Term Effect***

  As stated above, we believe that all cost factors will be reduced on an individual basis if assumptions and methods remain unchanged. Initially, the aggregate plan costs will remain unchanged since the plan change does not affect existing members. Consequently, we would expect to see very little impact on the short-term unless funding assumptions or methods were changed as a result of the plan change. However, it is our understanding that the current fund actuary would apply the new benefit provisions to all current members of the affected groups of employees in the calculation of the individual Entry Age Normal cost calculations. This application of the Entry Age Normal cost method results in a revised allocation of costs between past service and future service for **current** members. Since the present value of future benefits does not change for current members and since the proposed benefit changes result in lower expected future service costs, the result of this application of the Entry Age Normal cost method is that the allocation of costs to past service is increased. Under the fund's current methodology, past service costs are amortized as a level percentage of payroll over 30 years. Based on the current assumptions used for budgeting purposes, this methodology produces an amortization factor

of about 18 for past service costs. Future service costs are amortized as a level percentage of pay over the expected future payroll of active employees. Based on the current assumptions used for budgeting purposes, this methodology produces an amortization factor of about 8 for future service costs. Since each dollar that is shifted from future service costs to past service costs is funded over a longer period of time, we expect that the impact on short term costs will be a larger reduction due to the proposed benefit changes than what has been discussed above.

- ***Long-Term Effect***

  Over a long period of time, we would expect the aggregate plan costs to be lower than they otherwise would be as a result of this plan change. This statement is made based upon the plan's current funding assumptions and methods. If, as a result of this plan change, some assumptions or methods are revised (such as expected retirement rates), plan costs may be increased or further decreased depending upon the change that is made. We have provided more discussion about this issue in the Assumption section of our report.

Funding Review

In addition to the above proposed plan changes, we were asked to evaluate the impact of the County Executive's proposed funding of the pension contribution. As part of this review, we have provided an analysis of differing amortization periods for paying the *underfunded* portion of the required contribution. Using the actuary's budget calculation at 8.5% interest, the underfunded portion is expected to be $19,282,000. Using the actuary's budget calculation at 8% interest, the underfunded portion is expected to be $26,733,000.

Initially we anticipated preparing a present value of the amortization payments but we quickly realized that present values would just equal the amount of the shortfall (actuarial math is designed to equate different payment streams using present value!). Thinking this through, it became apparent that the issue is the "cost" of not paying the shortfall **now**. We believe that cost is equal to the investment earnings that the trust does not receive because the shortfall has not been paid. These "lost earnings" become County contributions instead. The first chart below shows the total "lost earnings" as "additional County Payments" in nominal dollars. The second chart then shows those "lost earnings" as the present value of the interest part of the amortization payments in order to equate it in 2006 dollars.

Additional County Payments			
Amortization Interest Rate	Amortization Period		
	5 Years	10 Years	30 Years
8.0%	$7,000,000	$14,500,000	$69,200,000
8.5%	5,400,000	11,200,000	54,400,000

Present Value of Additional County Payments			
Amortization Interest Rate	Amortization Period		
	5 Years	10 Years	30 Years
8.0%	$5,850,000	$10,500,000	$27,250,000
8.5%	4,450,000	7,950,000	20,300,000

There are additional "impacts" of such a proposed deferral of current amortization payments. The first and most obvious will be the very large increase in the "recommended" pension contribution for 2007. Not only will it jump back up to include the "normal" payment toward unfunded liability, but will also include the amortized piece of the 2006 deferred payment. Depending on the amortization period selected, this could mean a "recommended" pension contribution of $50 million or more. If a similar deferral were to be used in 2007, then the impacts as discussed here would accumulate in a compound manner.

Another impact to consider is the intergenerational effect on taxpayers. Deferring this year's funding obligation has the effect of passing debt on to future taxpayers.

ACTUARIAL ASSUMPTIONS

As part of this report, we have received and reviewed the January 1, 2005 Actuarial Valuation Report. This review allowed us to assess how the various assumptions used by the retained actuary would impact the proposed changes. In addition, we have provided commentary in this section as to the potential changes in assumptions that may be worthy of further consideration due to the proposed change in plan provisions.

Economic Assumptions

- ***Salary Scale***

  This assumption is provided as a set of age-based rates in the January 1, 2005 Actuarial Valuation Report. We do not believe that the proposed plan changes are likely to affect this assumption.

- ***Payroll Growth Assumption***

  This assumption is provided as a single fixed rate and affects the amortization of unfunded past service liability. We do not anticipate that the proposed plan changes would require a change in this assumption.

- ***Interest Assumption***

  This assumption is provided as a single fixed rate. We do not anticipate that the proposed plan changes would require a change in this assumption. We would point out that eliminating the Back-Drop feature might reduce investment fund liquidity requirements in future years. If the amount is significant, it could alter expected return on investments to some degree.

Demographic Assumptions

- ***Retirement Rates***

  If there is an assumption that is likely to be affected by either of the proposed plan changes, it would be this one. Currently, it appears that one set of age-based retirement rates is used for each employee group. It is our understanding that these rates are used for members who are eligible for retirement benefits (both reduced and unreduced). Currently no distinction is made between groups regardless of eligibility for Rule of 75, Back-Drop benefit or any other plan provision. We believe that the pattern of future retirements may and probably will be affected by removing the Rule of 75. While less clear, we believe that removing the Back-Drop benefit may also affect future retirement rates.

  With respect to the Rule of 75, we noticed that a reduction in assumed early retirement rates generally resulted in lower costs when the Rule of 75 was removed. However, we did notice one situation where costs appeared to increase. This appears to result in certain situations because

the same retirement rate is used whether the member is eligible for Rule of 75, 55 & 30, or just a reduced early retirement. By reducing the anticipated retirement rate for removing the Rule of 75 provisions, we also end up reducing the number of early retirements with reduced benefits as well. In the aggregate, we believe this will still produce a decrease in costs since the majority of ages appear to result in decreases.

With respect to the Back-Drop benefit, a reduction in early retirement rates does not appear to significantly affect the general outcome of cost reduction. We do note, however, that under these retirement rates older new hires have higher cost without the Back-Drop. This appears to be due to the fact that they are assumed to retire before the Back-Drop can become a substantial benefit to them. In reality, such a person may not retire as early as the assumptions would predict.

- ***Withdrawal Rates***

  The January 1, 2005 Actuarial Valuation uses an age-based table of male and female rates. It also applies a higher set of "select" rates based upon the first few years of service. We would not expect the adoption of either of the proposed plan changes to cause a change in this assumption.

- ***Back-Drop Utilization***

  The 2006 Budget Contribution that is developed in the January 1, 2005 Actuarial Valuation assumes that 70% of eligible retirees will elect the Back-Drop benefit. We would not expect the adoption of either of the proposed plan changes to cause a change in this assumption for existing members who are eligible to elect this benefit. As noted earlier, retirees with short service are less likely to fit this assumption.

- ***Mortality***

  Male and female age-based tables are currently used. We do not expect the proposed plan changes to affect the selection of these tables.

ACTUARIAL FUNDING METHOD

Aggregate Entry Age Normal Method

The Aggregate Entry Age Normal Method is being employed in the funding calculations for MCERS.

Under the Aggregate Entry Age Normal Method, Normal Costs are determined in the aggregate. The first step is to determine the Present Value of Projected Benefits to be paid for each member in the plan. The Actuarial Value of Assets and the Unfunded Actuarial Accrued Liability is subtracted from this number to determine the Present Value of Future Normal Costs. The aggregate total of the present value of future salaries for active members is then divided into the Present Value of Future Normal Costs resulting in the Normal Cost Rate. This Normal Cost Rate is then multiplied by the Expected Salaries to be paid to members in the upcoming year to determine the current year's Normal Cost.

In order to determine the Unfunded Actuarial Accrued Liability, the total Entry Age Normal Accrued Liability is calculated for each member and summed together. From this amount is subtracted the Actuarial Value of Assets.

Rule of 75

As mentioned earlier, a change in the retirement age eligibility may cause a change in the valuation of entry age values for both new hires *and* existing members of the affected group. As we mentioned earlier, this could have the effect of shifting costs from future service to past service in this instance. Unless the amortization period used for the past service costs is shortened, this will have the effect of reducing overall plan costs.

Back-Drop Benefit

As mentioned earlier, a change in the Back-Drop Benefit may cause a change in the valuation of entry age values for both new hires *and* existing members of the affected group. As we mentioned earlier, this could have the effect of shifting costs from future service to past service in this instance. Unless the amortization period used for the past service costs is shortened, this will have the effect of reducing overall plan costs.

SUMMARY OF PROPOSED PLAN AND FUNDING CHANGES

Rule of 75

The Rule of 75 was adopted as an alternative normal retirement benefit where a member can retire when the member's age and years of service added together total 75. There is no reduction in the member's benefit calculation. This benefit has been closed to new hires since 1994 for several groups of the ERS members covered by labor contracts. The proposed change would close this benefit to new hires in certain other groups of ERS members. The groups in the proposed change for this RFI cost study are the non-represented members, attorney, and building trade members.

Back-Drop

The Back-Drop benefit was effective for retirements that were applied for and beginning after January 1, 2001. This benefit provides a monthly pension based on pension service credit and final average salary calculations based on a specific date in the past, the back-drop date. All monthly payments payable after the Back-Drop date may be taken as a lump sum payment from ERS up to the date of actual retirement. Currently, two groups do not qualify for this benefit: the deputy sheriffs and non-represented members enrolled on or after March 15, 2002. The proposed change will close this benefit from all remaining union contracts for all future new hires.

The following table summarizes the Rule of 75 and Back-Drop changes for the various groups that are included in our review:

Group	Current	Revised
DC48	Back-Drop	No Back-Drop
Federation of Nurses & Health Professionals	Back-Drop	No Back-Drop
TEAMCO	Back-Drop	No Back-Drop
Milwaukee County Firefighters	Back-Drop	No Back-Drop
IAM	Back-Drop	No Back-Drop
Non-Represented	Rule of 75, No Back-Drop	No Rule of 75, No Back-Drop
Milwaukee Building & Construction Trades	Rule of 75, Back-Drop	No Rule of 75, No Back-Drop
Attorneys	Rule of 75, Back-Drop	No Rule of 75, No Back-Drop

Funding Proposal

The County Executive has a plan of proposed pension funding for the 2006 Budget. This plan would result in a shortfall of $26,733,000 from the required contribution in the January 1, 2005 Actuarial Valuation.